The reactor disclosed by Cabrera et al is made up of an external riser 70 and an internal riser 72 (see FIG. 2, and Column 7, lines 18-19). Pipeline 68 is simply an inlet line of feedstock, in which no catalyst exists, so there is literally no way to lift the catalyst. Thus, pipeline (68) does not anticipate the claimed prelift zone. The PTO suggests that the second reaction zone (external riser 70) described by Cabrera et al has a diameter larger than the first reaction zone (without label). However, as it might relate to claim 5 material it is believed for one skilled ordinarily in the art that the diameter ratio of the two is less than 1.2, because the design is to prevent the linear velocity increasing too high at upper part of the riser and the riser still is a high-velocity fluidized bed with higher than 10 m/sec of a linear velocity of the effluent therein. In the present application, the diameter ratio of the two is in the range from 1.5:1 to 5:1 (i.e. claim 5). The linear velocities of effluent are much different in the two reaction zones, the linear velocity of effluent is about 10 m/sec in the first reaction zone, but less than 5 m/sec in the second reaction zone. Thus, the first reaction zone is a high-speed fluidized bed, and the second reaction zone is a fast-velocity fluidized bed. Therefore, there exist essential differences between the second reaction zone of the present application and the external riser mentioned described in Cabrera et al.

It is apparent that the Office Action has not completely considered the functional limitations specified in the claims. Those functional limitations do limit the structure to the structures that permit and allow the specified reaction. Consequently, the rejection does not meet even the basic requirements of an anticipation rejection as required by the law. The presence of the FCCU catalyst in the pre-lift zone further vitiates the stated anticipation rejection.

There are many other differences between the riser reactor required in the claims and the substantially and substantively different reactor found in the Cabrera et al reference, but a single difference is all that is needed as a distinction between the claims and the Cabrera et al reference for the Cabrera et al reference to fail as an appropriate anticipation rejection.

Withdrawal of the rejection is therefore requested.

Docket No.: 456962000200
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Youhao XU et al.

Application No.: 09/553,990 Art Unit: 1764

Filed: April 20, 2000 Examiner: J. Leung

For: A RISER REACTOR FOR FLUIDIZED CATALYTIC CONVERSION

AMENDMENT

MS RCE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This is in response to the final Office Action dated November 25, 2003 (Paper No. 11142003) in which claims 1-8 (all of the claims in the application) were finally rejected. A previous response to the Final Rejection was filed on January 26, 2004.

The current response is filed after an Advisory Action mailed February 23, 2004 (Paper No. 2040209) in which entry of new and amended claims offered in the previous response to the Final Rejection, was denied. A request for withdrawal of the finality of the Final Rejection was denied with explanation. This Amendment and response is filed with a Request for Continuing Examination (RCE). Applicants do not request entry of the Amendment after Final.

In this Amendment, claims 1 and 6 have been amended and claims 9-48 have been added. Independent claim 9 and independent claim 17 are drawn to riser reactors of varying scope. Independent claim 25 recites a process for the practice of a catalytic cracking process in the device

specifically recited in claim 1. Similarly, independent claims 33 and 41 recite processes for the practice of catalytic cracking processes in the riser reactors specifically recited in claims 9 and 17. Because the new method claims specifically recite the details of the corresponding riser reactor claims **and** the riser reactors are functionally described in terms of the corresponding process, a showing of distinctness, as required by MPEP 806.05(e), is not appropriate, and the new method claims must be examined. Allowance of the claims is respectfully requested.